

An Excellent Addition to Your Library!

Released: March 2012

Technological Advancements and Applications in Mobile Ad-Hoc Networks: Research Trends



Kamaljit I. Lakhtaria
(Sir Padampat Singhanian University, India)

Mobile ad-hoc networks must be rapidly interoperable, customizable, and quick to adapt to the latest technological advances.

Technological Advancements and Applications in Mobile Ad-Hoc Networks: Research Trends offers a current look into the latest research in the field, frameworks for development, and future directions. As mobile networks become more complex, it is vital for researchers, practitioners, and academics alike to stay abreast within the ever-burgeoning field. With a wide range of applications, theories, and use across industrial, commercial, and domestic settings, mobile ad-hoc networks are a topic of vital discussion, and this volume offers the cutting edge developments with contributions from around the world.

Topics Covered:

- Backpressure routing
- Delay-tolerant networking
- End to end packet delays
- iMANET
- InVANETs
- MANETs
- Network throughput
- Protocols
- VANETs
- Wireless community network

ISBN: 9781466603219; © 2012; 507 pp.

Print: US \$190.00 | Perpetual: US \$285.00 | Print + Perpetual: US \$380.00

Pre-pub Discount:*

Print: US \$180.00 | Perpetual: US \$270.00

* Pre-pub price is good through one month after publication date.

Market: This premier publication is essential for all academic and research library reference collections. It is a crucial tool for academicians, researchers, and practitioners and is ideal for classroom use.

Kamaljit Lakhtaria is an Assistant Professor of Education Management at the School of Engineering, Sir Padampat Singhanian University, Udaipur, India. Previously, he was a Lecturer in the MCA Department at Atmiya Institute of Technology and Science, and before that, he worked at Schneider Electric.

Section 1: Mobility Research Models, Issues, and Findings in MANET

Chapter 1

Mobility Prediction and Mobile-aware Routing Protocols in MANETs

Khalid Lamiaa (WINCORE Laboratory, Ryerson University, Canada)
Jaseemuddin Muhammad (WINCORE Laboratory, Ryerson University, Canada)
Anpalagan Alagan (WINCORE Laboratory, Ryerson University, Canada)

Chapter 2

Multicast Routing Protocols in MANET

Torkestani Javad Akbari (Islamic Azad University, Iran)
Meybodi Mohammad Reza (Amirkabir University of Technology, Iran)

Chapter 3

Mobility Models for Ad-Hoc Networks:

Kulkarni Shirang Ambaji (National Institute of Ecology, India)
Rao G. Raghavendra (National Institute of Ecology, India)

Chapter 4

Broadcasting in Wireless Ad hoc Networks:

Ray Niranjana Kumar (NIT Rourkela, India)
Turuk Ashok Kumar (NIT Rourkela, India)

Chapter 5

Connectivity as a Fundamental Characteristic of Mobile Ad Hoc Networks

Abdullah Jiwa (Universiti Tun Hussein Onn Malaysia, Malaysia)

Chapter 6

Overview of Temporally Ordered Routing Algorithm and QoS Components in MANETS

Khan Jahangir (Sarhad University of Science and Information Technology Peshawar, Pakistan)
Nauman Abou Bakar (Sarhad University of Science and Information Technology Peshawar, Pakistan)

Section 2: MANET Protocols

Chapter 7

Topology-based Classification of Multicast Routing Protocols for Mobile Ad hoc Networks

Meghanathan Natarajan (Jackson State University, USA)

Chapter 8

Performance Comparison of AODV and DSDV Routing Protocols of MANET

Patel Bhaskar N. (B.S. Patel Polytechnic, India)
Prajapati S.G. (B.S. Patel Polytechnic, India)

Chapter 9

Analyzing Performance of Ad hoc Routing Protocols under Various Constraints

Sharma Lalitsen (University of Jammu, India)
Gupta Supriya (University of Jammu, India)

Chapter 10

Overview and Performance Analysis of Ad-Hoc on-Demand Distance Vector Routing Protocol

Khan Jahangir (Sarhad University of Science and Information Technology Peshawar, Pakistan)

Chapter 11

Environment Design Architecture of MANET:

Trivedi Krunal D. (A.M.Patel Institute of Computer Studies, Ganpat University, India)
Patel Narendra J. (Ganpat University, India)
Shah Palak. R. (A.M.Patel Institute of computer Studies, Ganpat University, India)

Section 3: MANET Threat and Security

Chapter 12

Key Generation for Wireless Sensor Networks Using Symmetric Balanced Incomplete Block Design

Srinivasa K. G. (MS Ramaiah Institute of Technology, India)
Archana V. (MS Ramaiah Institute of Technology, India)
Poornima V. (MS Ramaiah Institute of Technology, India)
Reshma C. (MS Ramaiah Institute of Technology, India)

Chapter 13

Security Issues and Models in Mobile ad hoc Networks

Venkataraman Revathi (SRM University, India)

Rao T. Rama (SRM University, India)

Chapter 14

Incorporating Security and Energy Efficiency for Multimedia Communications in WAnets:

Kaddar Lamia (University of Versailles/PRISM, France)

Chapter 15

Security Threats and Issues with MANET

Singh Sudha (Bengal College of Engineering and Technology, India)

Chapter 16

Security Aware Routing Protocols for Mobile Ad hoc Networks

Ali M.S. (Prof Ram Meghe College of Engineering & Management, India)
Jawandhiya P.M. (Jawaharlal Darda Institute of Engineering & Technology, India)

Section 4: Emerging Trends of Research in MANET

Chapter 17

Energy Conservation Issues and Challenges in MANETS

Ray Niranjana Kumar (NIT Rourkela, India)
Turuk Ashok Kumar (NIT Rourkela, India)

Chapter 18

Modelling WSNs Using OMNeT++

Anggadaja Erwin (Earth Observatory of Singapore, Nanyang Technological University, Singapore)
McLoughlin Ian V. (Nanyang Technological University, Singapore)

Chapter 19

Data Fusion in Wireless Sensor Networks:

Agrawal Lalit (Indian Institute of Information Technology, India)
Kumar Alok (Indian Institute of Information Technology, India)
Nagori Jaya (Indian Institute of Information Technology, India)
Varma Shirshu (Indian Institute of Information Technology, India)

Chapter 20

Agility Improvement in Cognitive Radio under Bluetooth Paradigm Using Ant Colony Metaphor

Darwish Ashraf (Helwan University, Egypt)

Chapter 21

Potential Area of Research in MANET

Singh Sudha (Bengal College of Engineering and Technology, India)
Singh D. K. (Birma Institute of Technology Sindri, India.)
Mondal Mr. Suddipta (Bengal College of Engineering and Technology, India)

Chapter 22

SimuMANET:

Alejos Ana Vazquez (University of Vigo, Spain)
Pérez Paula Gómez (University of Vigo, Spain)
Sanchez Manuel Garcia (University of Vigo, Spain)
Dawood Muhammad (New Mexico State University, USA)

Order Your Copy Today!

Name: _____

Organization: _____

Address: _____

City, State, Zip: _____

Country: _____

Tel: _____

Fax: _____

E-mail: _____

Enclosed is check payable to IGI Global in
US Dollars, drawn on a US-based bank

Credit Card Mastercard Visa Am. Express

3 or 4 Digit Security Code: _____

Name on Card: _____

Account #: _____

Expiration Date: _____